

Attorney Docket #10030808-1

Claims

What is claimed is:

1. (original) A device comprising:
 - a sub-mount;
 - a die including a sensor that is electrically connected to the sub-mount;
 - a cap attached to the sub-mount so as to form a cavity enclosing the die; and
 - an alignment post attached to the cap along an optical path to the sensor.
2. (original) The device of claim 1, further comprising a sleeve having a bore sized to accommodate the alignment post at a first end of the bore and an optical fiber connector at a second end of the bore.
3. (original) The device of claim 1, wherein the die is attached to the sub-mount so that a front face of the die is adjacent the sub-mount.
4. (original) The device of claim 3, further comprising a lens formed on a back face of the die, the lens focusing a photosensitive area of the sensor.
5. (original) The device of claim 1, further comprising a lens integrated into the cap between the alignment post and the photosensor.
6. (original) The device of claim 1, wherein the sub-mount incorporates an active circuit that operates on an electrical output signal of the sensor.
7. (original) The device of claim 6, wherein the active circuit comprises an amplifier.
8. (original) The device of claim 1, wherein the cavity enclosing the die is hermetically sealed.

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9. (original) The device of claim 1, wherein the sub-mount comprises:
internal terminals that are within the cavity and electrically connected to the die;
and
external terminals that are accessible outside the cavity and are electrically connected to the internal terminals.
10. (original) The device of claim 9, further comprising a flexible circuit connected to the external terminals.
11. (original) A device comprising:
a sub-mount;
a die including a sensor having a photosensitive area at a front face of the die, the die being attached to the sub-mount so that the front face of the die is adjacent the sub-mount;
a cap attached to the sub-mount so as to form a cavity enclosing the die, the cap permitting transmission of an optical signal into the cavity; and
a lens on a back face of the die, the lens focusing the optical signal onto the photosensitive area of the sensor.
12. (original) The device of claim 11, further comprising a post attached to the cap along an optical path to the photosensitive area of the sensor.
13. (original) The device of claim 12, further comprising a sleeve having a bore sized to accommodate the alignment post at a first end of the bore and an optical fiber connector at a second end of the bore.
14. (original) The device of claim 11, wherein the sub-mount incorporates an active circuit that operates on an electrical output signal of the sensor.
15. (original) The device of claim 14, wherein the active circuit comprises an amplifier.

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16. (original) The device of claim 11, wherein the cavity enclosing the die is hermetically sealed.

17. (original) The device of claim 11, wherein the sub-mount comprises:

internal terminals that are within the cavity and electrically connected to the die;
and

external terminals that accessible outside the cavity and are electrically connected to the internal terminals.

18. (original) The device of claim 17, further comprising a flexible circuit connected to the external terminals.

19. (original) A device comprising:

a semiconductor sub-mount including an active circuit integrated into the semiconductor sub-mount;

a die including a photosensor that is electrically connected to the active circuit;
and

a cap attached to the sub-mount so as to form a cavity enclosing the die.

20. (original) The device of claim 19, wherein the active circuit operates on an electrical output signal of the photosensor.

21. (original) The device of claim 19, wherein the active circuit comprises an amplifier.

22. (original) The device of claim 19, wherein the cavity enclosing the die is hermetically sealed.

23. (original) The device of claim 19, wherein an optical signal enters the cavity through the cap.

24. (original) The device of claim 19, wherein the sub-mount comprises:

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internal terminals that are within the cavity and electrically connected to the die;
and
external terminals that are accessible outside the cavity and electrically connected
to the internal terminals.

25. (original) The device of claim 24, further comprising a flexible circuit connected to
the external terminals.

Claims 26-34 (canceled)

Respectfully submitted,

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